

FREQUENCY DOUBLERS

D-1505

Features

- Input 1.5 to 5.0 GHz
- Output 3.0 to 10.0 GHz
- 10 dB Typical Conversion Loss
- 30 dBc Typical Third Harmonic Suppression
- Two Input Levels Available
- Multi-Octave Band Input



Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system

Parameter	INPUT (GHz)	OUTPUT (GHz)	Min	Typ	Max	Diode Option LO drive level (dBm)
Conversion Loss (dB) F(in) 2F(out)	1.5-5.0	3.0-10.0		10.0	12.0	
Suppressions (dBc) F(in) Fundamental 3F(out) Third Harmonic		1.5-5.0 4.5-10.0	15 20	25 30		
Input Level (dBm) <i>(Consult Marki Microwave for Higher Input Levels)</i>						L (+10 to +13) M (+13 to +16)

Part Number Options

Please specify diode level and package style by adding to model number.						
Package Options			Examples			
Connectorized	<u>P</u>		D-1505LP			
Package Options Not Recommended for New Designs			Examples			
Microstrip ^{1,2}	<u>E</u>		<u>D-0308</u> (Model)	<u>L</u> (Diode Option)	<u>E</u> (Package)	

¹Connectorized test fixtures available for most microstrip packages. Consult factory.

²E packages are offered in support of designed in projects only. For new designs consult the [MLD-0416SM](#).

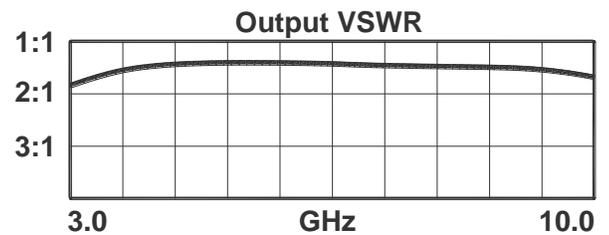
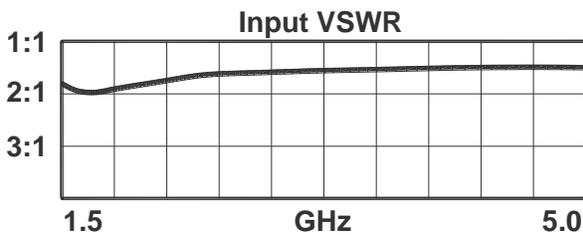
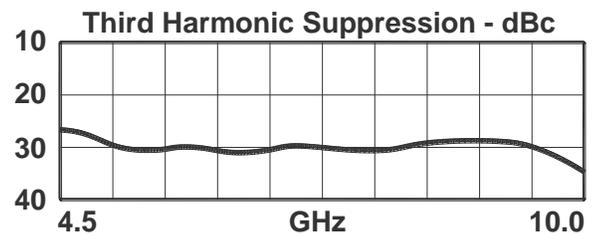
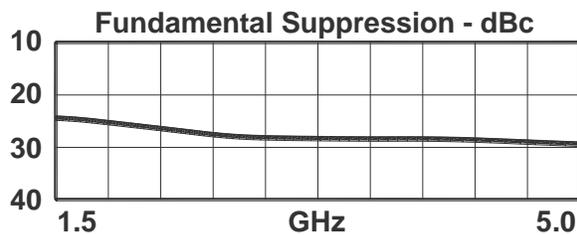
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**Input 1.5 to 5.0 GHz
Output 3.0 to 10.0 GHz**

Typical Performance



DATA SHEET NOTES:

1. Doubled Loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
2. Maximum input power is +23 dBm at +25°C, derated linearly to +20 dBm at +100°C.
3. Specifications are subject to change without notice. Contact Marki Microwave for the most recent specifications and data sheets.
4. Standard configuration for A, B, and C outlines are with connectors and bottom spacer.
5. Catalog doubler circuits are continually improved. Configuration control requires custom model numbers and specifications.

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